ABSTRACT

[0030] A housing for a brake booster (100) having a first shell (10) joined to a second shell (30) by deforming a first peripheral surface on the first shell (10) with respect to a second peripheral surface (204) on the second shell (30) toward an axial center of said second shell (30) to axially compress a bead (27) on a diaphragm (28) located between the first (10) and second (30) shells and seal an interior of the housing from the surrounding environment. The first peripheral surface of the first shell (10) is characterized by a flange (26) that extends from a shoulder (20) to an opened end (18). The flange (26) has a plurality of axial slots (36,36',•••36^n) that axially extend from the opened end (18) toward the shoulder (20) and engage a plurality of radial slots (38,38',•••38^n) to create a corresponding plurality of ⌋ ⌊-shaped openings adjacent a radial plane (11) from the axis of shell (10). The ⌋ ⌊-shaped openings define a first plurality of arcuate projections (40,40',•••40^n) that are separated from a second plurality of arcuate projections (42,42',•••42^n). The plurality of radial slots (38,38',•••38^n) form first (44) and second (46) radial tabs that extend from each of the second plurality of arcuate projections (42,42',•••42^n). The opened end (18) of the first shell (10) receives the opened end (202) on the second shell (30) and the first plurality of arcuate projections (40,40',•••40^n) are deformed toward the axis of the second shell (30) to engage an edge (206) of a second peripheral surface (204) to position the second peripheral surface (204) adjacent the radial plane (11) and under the flange (26) to thereby protect the peripheral surface (204) from the surrounding environment.